Application of Wisconsin Electric Power Company
To Install Selective Catalytic Reduction Facilities and Associated Equipment on Edgewater Unit 5 for Control of Nitrogen Oxide Emissions
Docket No. 05-CE-137

PSCW Data Request 4

Request:

04.01. Given recent EPA action on the Endangerment Finding regarding CO_2 as a pollutant, as well as the activity in the Congress on proposed legislation to place a cap on CO_2 emissions, there is a significant likelihood that absolute CO_2 emission reductions will be required on a unit, facility, or fleet basis. Prepare and submit an analysis addressing the following:

If CO_2 emissions must be reduced by 2025 by up to 30 percent from a 2005 fleet CO_2 emissions baseline, what assurance can you provide to the Commission that:
a. The investment in proposed pollution controls will be cost effective, and;
b. That the unit(s) will be in use long enough to assure that the investment will be both cost effective and not become a stranded investment. The analysis need not use EGEAS, but it needs to quantify how the proposed construction is likely to be cost effective.

Response: The Company used EGEAS in projecting the "break-even" point at which the difference in discounted revenue requirements associated with operation of the unit with installation of control equipment vs retirement of the unit are zero. The attached graph depicts this break-even point. Based on this analysis, the Project will break-even after about 12 years of operation after installation of the SCR, or by about 2024.

a. Since this date is prior to the imposition of the CO2 limits as presented in the data request (2025), the investment in the proposed pollution controls is projected to be cost-effective.

b. Operation of the unit with emission controls beyond 2024 would provide net savings to our customers. Wisconsin Electric will establish cost-effective approaches to reduce its CO2 emissions to meet future CO2 requirements, which will consider all compliance approaches. Given the relative efficiency and cost-effectiveness of Edgewater Unit 5, it is unlikely such future compliance efforts would include retirement of this unit. Accordingly, Edgewater Unit 5 is unlikely to become a stranded investment.

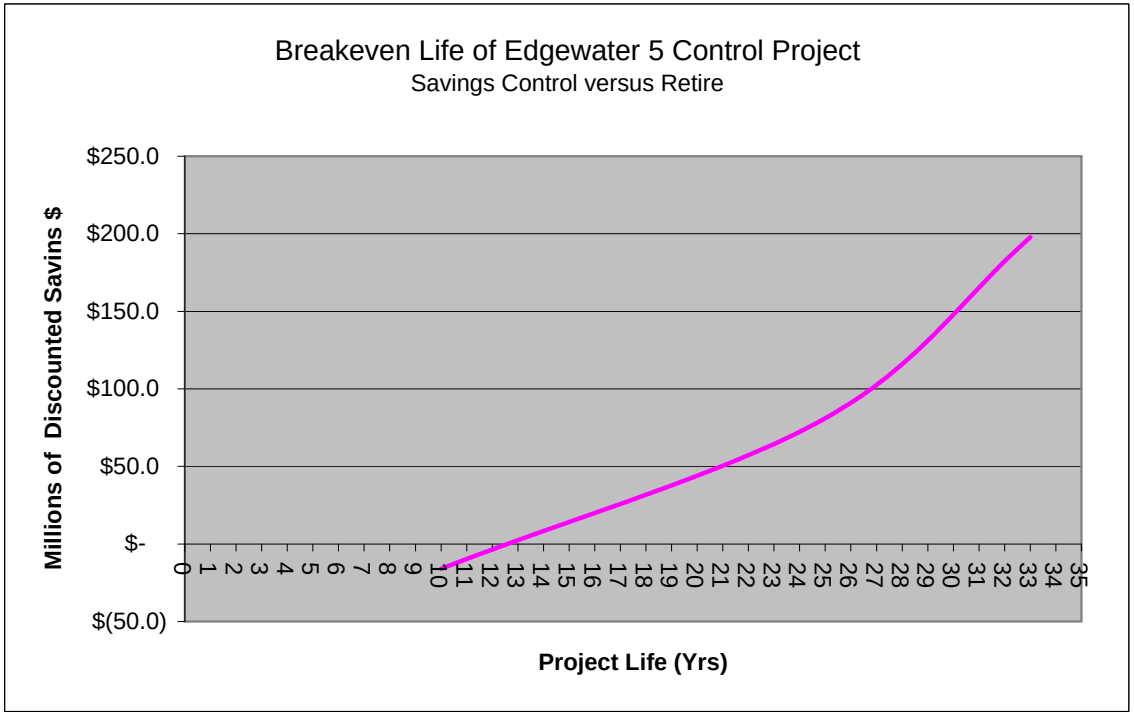
Answered by: Paul Schumacher

Date: June 2, 2009

Edge5-6 5/19/2009

Break Even Life

		Life	Amount
$ 38,059.6	$ 38,043.7	10	$ (15.9)
$ 37,962.7	$ 38,043.7	25	$ 81.0
$ 37,845.8	$ 38,043.7	33	$ 197.9



Calendar Year	Project Life	
2021	10	Snapshot Year
2022	11	
2023	12	
2024	13	
2025	14	
2026	15	Snapshot Year
2027	16	
2028	17	
2029	18	
2030	19	
2031	20	
2032	21	
2033	22	
2034	23	
2035	24	
2036	25	Snapshot Year
2037	26	
2038	27	
2039	28	
2040	29	
2041	30	
2042	31	
2043	32	
2044	33	Snapshot Year